

GEARTECH	CHECKLIST			No. CK2000	SHEET 1 OF 2
				Rev. A	
Procurement Specification				BY RLE	DATE 3/22/98
				CKD JRM	DATE 3/23/98
Question	Y	N	R	Comments	
Does the procurement specification conform to the following requirements of AGMA/AWEA 921-A97, clauses:					
4.1 Specification introduction?					
4.2 System specification?					
4.2.1 Rotor speed?					
4.2.2 Gear ratio?					
4.2.3 Loading?					
4.2.4 Configuration?					
4.2.5 Operating environment?					
4.2.6 Sound?					
4.2.7 Vibration?					
4.2.8 Control?					
4.2.9 Start-up considerations?					
4.3 Component rating?					
4.3.1 Gear life rating?					
4.3.2 Gearbox thermal rating?					
4.3.3 Bearing life rating?					
4.3.4 Shaft life rating?					
4.3.5 Housings?					
4.3.6 Seals?					
4.4 Gear elements?					
4.4.1 Gear type?					
4.4.2 Gear design?					
4.4.2.1 Preferred number of pinion teeth?					
4.4.2.2 Aspect ratio?					
4.4.2.3 Total contact ratio?					
4.4.2.4 Profile shift?					
4.4.2.5 Profile modification?					
4.4.2.6 Helix modification?					
4.4.3 Gear materials?					
4.4.3.1 External gears?					
4.4.3.2 Internal gears?					
4.4.4 Gear accuracy?					
4.4.5 Gear manufacturing					
4.4.5.1 Gear tooth cutting?					
4.4.5.2 Gear tooth grinding?					
4.4.5.3 Gear tooth chamfering?					
4.4.5.4 Gear tooth surface roughness?					
4.4.6 Gear arrangements?					
4.4.7 Lifting holes?					
4.5 Bearings?					
4.5.1 Bearing type?					
4.5.2 Bearing arrangement?					
4.5.3 Bearing shaft/housing fits?					
4.6 Shaft and keys?					
4.6.1 Shafts?					
4.6.2 Shaft material?					

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				Rev. A	
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Question	Y	N	R	Comments	
4.6.3 Shaft hardness?					
4.6.4 Lifting holes?					
4.6.5 Keys?					
4.6.6 Key material?					
4.6.7 Key hardness?					
4.6.8 Key geometry and shaft fit?					
4.7 Housings?					
4.7.1 Housing material?					
4.7.2 Housing distortion?					
4.7.3 Housing accuracy?					
4.7.4 Inspection covers?					
4.7.5 Bore covers?					
4.7.6 Housing joint?					
4.8 Lubrication system?					
4.8.1 Type of lubricant?					
4.8.2 Lubricant viscosity?					
4.8.3 Method of lubrication?					
4.8.4 Sump temperature?					
4.8.5 Operating temperature?					
4.8.6 Orifices?					
4.8.6.1 Drain and fill plugs?					
4.8.6.2 Pressurized ports?					
4.8.6.3 Non-pressurized ports?					
4.8.7 Oil level indicator?					
4.8.8 Magnetic plugs?					
4.8.9 Breather?					
4.9 Seals?					
4.10 Interfaces?					
4.10.1 Low speed shaft?					
4.10.2 High speed shaft(s)?					
4.10.3 Mounting?					
4.10.4 Torque arm?					
4.10.5 Generator?					
4.10.6 Pitch system?					
4.10.7 Yaw system?					
4.10.8 Lifting points?					
4.10.9 Brake?					
4.10.10 Sensors?					
4.10.11 Safety systems?					
4.10.12 Personnel?					
4.10.13 Miscellaneous?					
4.11 Hardware?					
4.11.1 High strength hardware?					
4.11.2 Internal fasteners?					
4.12 Surface coatings?					
4.13 Quality assurance?					
4.14 Analysis, drawings and data?					